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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

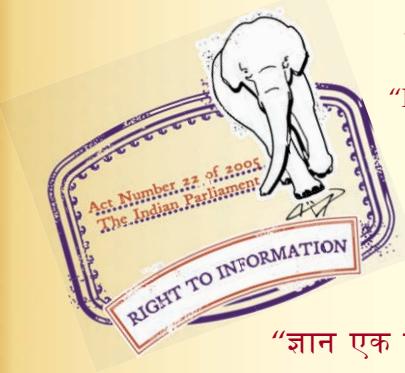
“Step Out From the Old to the New”

IS 10725 (1983): Knife, Myringotomy [MHD 4: Ear, Nose and Throat Surgery Instruments]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”





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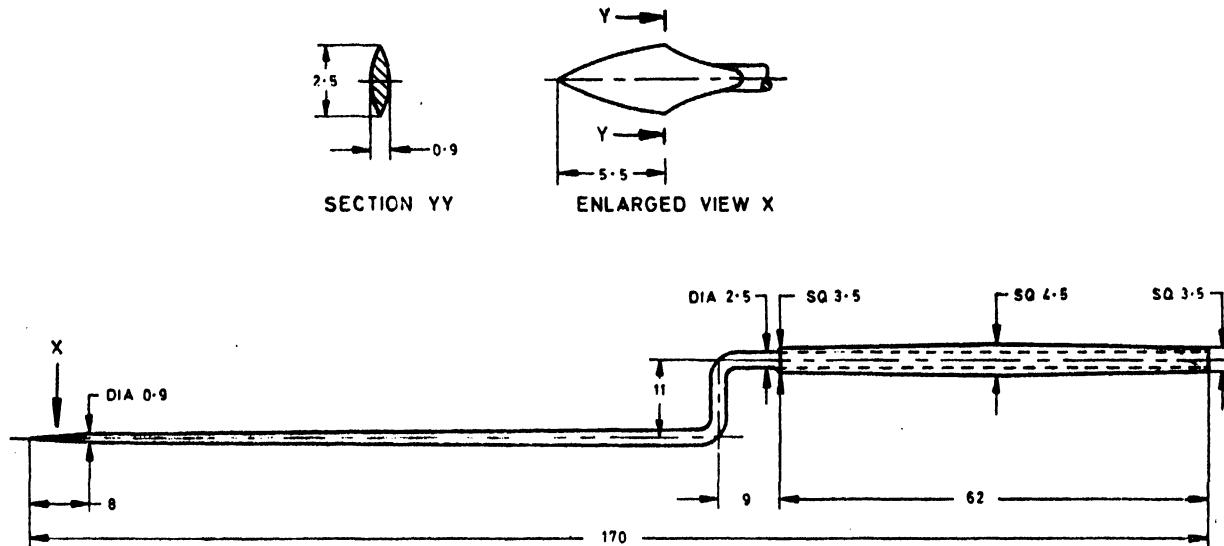


Indian Standard

## SPECIFICATION FOR KNIFE, MYRINGOTOMY

**1. Scope** — Specifies material, dimensions and other requirements for myringotomy knife used in microsurgery.

**2. Shape and Dimensions** — As shown in Fig. 1.



All dimensions in millimetres.

FIG. 1 KNIFE, MYRINGOTOMY

**2.1 Tolerances on various dimensions shall be permitted as given below:**

- ± 0.1 mm on dimensions up to 5.0 mm,
- ± 0.2 mm on dimensions above 5.0 mm and up to 20.0 mm,
- ± 1.0 mm on dimensions above 20.0 mm and up to 50.0 mm,
- ± 2.0 mm on dimensions above 50.0 mm and up to 100.0 mm, and
- ± 2.5 mm on dimensions above 100.0 mm.

**3. Material** — Stainless steel conforming to Designation 30Cr13 of IS : 6603-1972 'Specification for stainless steel bars and flats'.

### 4. Workmanship and Finish

**4.1** The knife shall be forged in one piece to the required shape and size.

**4.2** The cutting edge of the knife shall be surgically sharp.

**4.3** The cutting edge shall be free from feathers, nicks, high spots, waviness or undulation when examined under a magnification of 30X.

**4.4** The knife shall be free from cracks, seams, scales, burrs, pits and other surface defects when inspected using normal corrected vision. All edges other than the cutting edge shall be rounded.

**4.5** The knife shall be passivated and matt finished.

**4.5.1** The knife shall be passivated by treating in 10 percent (v/v) nitric acid solution for not less than 30 minutes at a temperature of not less than 10°C and not exceeding 60°C. The knife shall then be rinsed in water and dried in hot air.

Adopted 28 November 1983

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Gr 1

4.6 The handle shall be such as to provide a proper grip.

5. Heat Treatment — The cutting edge and the shank of the knife shall be hardened and tempered to a hardness of 380 to 480 HV, when tested in accordance with IS : 1501-1968 'Method for Vickers hardness test for steel (first revision)'.

6. Tests

6.1 *Sharpness of the Cutting Edge* — With the application of light pressure, the knife shall be made to cut a piece of chamois leather. Five such cuts, 100 mm long approximately, shall be made. The knife shall cut the chamois leather neatly and without pulling the leather.

After the test, the cutting edge of the knife shall be examined to conform to the requirement of 4.3.

6.2 *Corrosion Resistance* — The knife shall show no sign of corrosion, when tested in accordance with IS : 7531-1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'.

7. Marking — The handle of the knife shall be marked legibly and indelibly with the following:

- a) Manufacturer's name, initials or registered trade-mark;
- b) Country of manufacture; and
- c) The words 'Stainless Steel' or the letters 'SS'.

7.1 *ISI Certification Marking* — Details available with the Indian Standards Institution.

8. Packing — The knife shall be wrapped in a moisture-proof paper or packed in a polyethylene bag. Each knife shall be packed in an individual carton in such a way that its cutting edge does not come in contact with hard surface resulting in any damage.

**Note** — The knife shall be thoroughly cleaned, preferably ultrasonically and dried before packing.

**AMENDMENT NO. 1 JANUARY 1994  
TO  
IS 10725 : 1983 SPECIFICATION FOR KNIFE,  
MYRINGOTOMY**

*(Page 2, clause 5)* — Substitute the following for the existing clause:

**“5 Heat Treatment** — The cutting edge and the shank of the knife shall be hardened and tempered to a hardness of 380 to 480 HV when tested in accordance with IS 1501 (Part 1) : 1984 ‘Method for Vickers hardness test for metallic materials: Part 1 HV 5 to HV 100 (second revision)’.”

*(Page 2, clause 6.2)* — Substitute the following for the existing clause:

**“6.2 Corrosion Resistance** — The knife shall satisfy the requirements of IS 7531 : 1990 ‘Methods for testing of corrosion resistance of stainless steel surgical instruments (first revision)’.”

**(MHD 4)**

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